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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/513,687	02/25/2000	Yong-Hoon Lee	1316.1041/MDS	7481

21171 7590 01/24/2003

STAAS & HALSEY LLP  
700 11TH STREET, NW  
SUITE 500  
WASHINGTON, DC 20001

EXAMINER

FERGUSON, LAWRENCE D

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 01/24/2003

17

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/513,687	<b>Applicant(s)</b> LEE ET AL.	
	<b>Examiner</b> Lawrence D Ferguson	<b>Art Unit</b> 1774	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 31-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Response to Amendment***

1. This action is in response to the request for reconsideration mailed October 30, 2002. Claims 1, 12 and 27 were amended rendering claims 1-30 pending.

***New Matter - 35 U.S.C. 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 12 and 27 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Protruding from surfaces of the flat portions 'towards an outside of the substrate and narrowing in a direction toward the outside of the substrate' is not supported by the specification or Figure 3. Additionally, first protrusions extending from the first surface 'toward an outside of the substrate' is not supported by the specification or Figure 3. Figure 3 does not show protrusions in a direction toward the outside of the substrate [405] but rather the protecting layer [404].

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections – 35 USC § 103(a)***

4. Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (U.S. 5,470,627) in view of Vedamuttu (U.S. 6,165,391).

5. Lee discloses a double-sided optical storage disk comprising a substrate having a microstructure formed on each side surface, where the microstructure is in the form of grooves (abstract) where grooves are analogous to track guides. Lee discloses, formed on each of the side surfaces from the substrate outward are a reflective layer, dielectric layer, recording layer and transparent protective layer (column 4, lines 27-34). Lee shows hills of a peaked hood shape in figure 4. Although Lee does not explicitly disclose the height of the peaked hood shape or grooves or the thickness of the protective layer, height and thickness are optimizable. It would have been obvious to one of ordinary skill in the art to optimize the components because discovering the optimum or workable values involves only routine skill in the art. Lee does not explicitly disclose micro-embossments protruding from the substrate.

Vedamuttu teaches providing micro-embossment(s) on the surface of an optical disc (column 3, lines 66-67). Lee and Vedamuttu are analogous art because they are from the field of optical discs. It would have been obvious to one of ordinary skill in the art to include the micro-embossments of Vedamuttu on the substrate of Lee because Vedamuttu teaches the micro-embossments can visually enhance the disc (column 4 lines 52-54).

***Response to Arguments***

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6. Remarks in regard to the rejection under 35 USC 103(a) as being unpatentable over Honguh et al (U.S. 5,776,574) have been considered and are overcome due to Applicant's arguments of Honguh not showing evidence that no change occurs in the properties and functions of the optical disk.

Remarks in regard to the rejection under 35 USC 102(b) as being anticipated by Lee et al (U.S. 5,470,627) have been considered and are moot based on grounds of new rejection.

Remarks in regard to the rejection under 35 USC 103(a) as being anticipated by Lee et al (U.S. 5,470,627) have been considered and are moot based on grounds of new rejection.

### ***Conclusion***

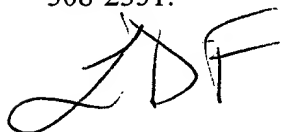
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is (703) 305-9978. The examiner can normally be reached on Monday through Friday 8:30 AM – 4:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. Please allow the examiner twenty-four hours to return your call.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for

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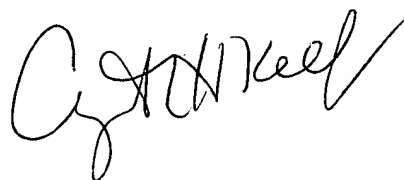
After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)

308-2351.

A handwritten signature in black ink, appearing to read 'LDF', with a stylized, looping 'L' and a distinct 'F'.

Lawrence D. Ferguson  
Examiner  
Art Unit 1774

CYNTHIA H. KELLY  
SUPERVISOR PATENT EXAMINER  
TECHNOLOGY CENTER 1700

A handwritten signature in black ink, appearing to read 'Cynthia H. Kelly', with a large, flowing 'C' and a checkmark-like flourish at the end.